

SEQUENCE LISTING

<110> PROCYON BIOPHARMA INC.
 <120> PHARMACEUTICAL PREPARATIONS AND METHODS FOR INHIBITING TUMORS
 <130> 06508-030-us-03
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 <151> 2000-10-16
 <150> 2,355,334
 <151> 2001-08-20
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 35 40 45
 Cys Cys Thr Leu Val Ser Thr Pro Val Gly Tyr Asp Lys Asp Asn Cys
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 Gln Arg Ile Phe Lys Lys Glu Asp Cys Lys Tyr Ile Val Val Glu Lys
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 Lys Asp Pro Lys Lys Thr Cys Ser Val Ser Glu Trp Ile Ile
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 Lys His Pro Ile Asn Ser Glu Trp Gln Thr Asp Asn Cys Glu Thr Cys
 35 40 45
 Thr Cys Tyr Glu Thr Glu Ile Ser Cys Cys Thr Leu Val Ser Thr Pro
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 Val Gly Tyr Asp Lys Asp Asn Cys Gln Arg Ile Phe Lys Lys Glu Asp
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 Cys Lys Tyr Ile Val Val Glu Lys Lys Asp Pro Lys Lys Thr Cys Ser
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 Val Ser Glu Trp Ile Ile
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Tyr Thr Cys Ser Val Ser Glu Pro Gly Ile
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Trp Ile Ile

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<210> SEQ ID NO: 11
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Ile

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Ile Ser

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Ile Ser Cys

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Ile Ser Cys Cys Thr Leu Val Ser
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Ile Ser Cys Cys Thr Leu Val Ser Thr Pro Val Gly Tyr Asp Lys
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Ile Ser Cys Cys Thr Leu Val Ser Thr Pro Val Gly Tyr Asp Lys Asp
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Ile Ser Cys Cys Thr Leu Val Ser Thr Pro Val Gly Tyr Asp Lys Asp
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Asn

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Glu Trp Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr Glu
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Asn Cys

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Glu Trp Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr Glu
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Ile Ser Cys Cys Thr Leu Val Ser Thr Pro Val Gly Tyr Asp Lys Asp
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Ile Ser Cys Cys Thr Leu Val Ser Thr Pro Val Gly Tyr Asp Lys Asp
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Asn Cys Gln Arg
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Ile Ser Cys Cys Thr Leu Val Ser Thr Pro Val Gly Tyr Asp Lys Asp
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Asn Cys Gln Arg Ile
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Ile Ser Cys Cys Thr Leu Val Ser Thr Pro Val Gly Tyr Asp Lys Asp
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Asn Cys Gln Arg Ile Phe
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Asn Cys Gln Arg Ile Phe Lys
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Asn Cys Gln Arg Ile Phe Lys Lys
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 20 25 30
 Asn Cys Gln Arg Ile Phe Lys Lys Glu
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 Ile Ser Cys Cys Thr Leu Val Ser Thr Pro Val Gly Tyr Asp Lys Asp
 20 25 30
 Asn Cys Gln Arg Ile Phe Lys Lys Glu Asp
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 Ile Ser Cys Cys Thr Leu Val Ser Thr Pro Val Gly Tyr Asp Lys Asp
 20 25 30
 Asn Cys Gln Arg Ile Phe Lys Lys Glu Asp Cys
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 Ile Ser Cys Cys Thr Leu Val Ser Thr Pro Val Gly Tyr Asp Lys Asp
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Asn Cys Gln Arg Ile Phe Lys Lys Glu Asp Cys Lys
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 35 40 45

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Glu Trp Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr Glu
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Asn Cys Gln Arg Ile Phe Lys Lys Glu Asp Cys Lys Tyr Ile
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Ile Ser Cys Cys Thr Leu Val Ser Thr Pro Val Gly Tyr Asp Lys Asp
 20 25 30

Asn Cys Gln Arg Ile Phe Lys Lys Glu Asp Cys Lys Tyr Ile Val
 35 40 45

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Glu Trp Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr Glu
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Ile Ser Cys Cys Thr Leu Val Ser Thr Pro Val Gly Tyr Asp Lys Asp
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Asn Cys Gln Arg Ile Phe Lys Lys Glu Asp Cys Lys Tyr Ile Val Val
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Glu Trp Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr Glu
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Asn Cys Gln Arg Ile Phe Lys Lys Glu Asp Cys Lys Tyr Ile Val Val
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Glu

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Ile Ser Cys Cys Thr Leu Val Ser Thr Pro Val Gly Tyr Asp Lys Asp
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Asn Cys Gln Arg Ile Phe Lys Lys Glu Asp Cys Lys Tyr Ile Val Val
 35 40 45

Glu Lys
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Asn Cys Gln Arg Ile Phe Lys Lys Glu Asp Cys Lys Tyr Ile Val Val
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Glu Lys Lys
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20 25 30
Asn Cys Gln Arg Ile Phe Lys Lys Glu Asp Cys Lys Tyr Ile Val Val
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Glu Lys Lys Asp
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Ile Ser Cys Cys Thr Leu Val Ser Thr Pro Val Gly Tyr Asp Lys Asp
20 25 30
Asn Cys Gln Arg Ile Phe Lys Lys Glu Asp Cys Lys Tyr Ile Val Val
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Glu Lys Lys Asp Pro
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20 25 30
Asn Cys Gln Arg Ile Phe Lys Lys Glu Asp Cys Lys Tyr Ile Val Val
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Glu Lys Lys Asp Pro Lys
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 20 25 30
 Asn Cys Gln Arg Ile Phe Lys Lys Glu Asp Cys Lys Tyr Ile Val Val
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 Glu Lys Lys Asp Pro Lys Lys
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 Ile Ser Cys Cys Thr Leu Val Ser Thr Pro Val Gly Tyr Asp Lys Asp
 20 25 30
 Asn Cys Gln Arg Ile Phe Lys Lys Glu Asp Cys Lys Tyr Ile Val Val
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 Glu Lys Lys Asp Pro Lys Lys Thr
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 Asn Cys Gln Arg Ile Phe Lys Lys Glu Asp Cys Lys Tyr Ile Val Val
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 Glu Lys Lys Asp Pro Lys Lys Thr Cys
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 Asn Cys Gln Arg Ile Phe Lys Lys Glu Asp Cys Lys Tyr Ile Val Val
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 Asn Cys Gln Arg Ile Phe Lys Lys Glu Asp Cys Lys Tyr Ile Val Val
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 Glu Lys Lys Asp Pro Lys Lys Thr Cys Ser Val Ser
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Asn Cys Gln Arg Ile Phe Lys Lys Glu Asp Cys Lys Tyr Ile Val Val
35 40 45

Glu Lys Lys Asp Pro Lys Lys Thr Cys Ser Val Ser Glu
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Asn Cys Gln Arg Ile Phe Lys Lys Glu Asp Cys Lys Tyr Ile Val Val
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Glu Lys Lys Asp Pro Lys Lys Thr Cys Ser Val Ser Glu Trp
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20 25 30

Asn Cys Gln Arg Ile Phe Lys Lys Glu Asp Cys Lys Tyr Ile Val Val
35 40 45

Glu Lys Lys Asp Pro Lys Lys Thr Cys Ser Val Ser Glu Trp Ile
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Glu Trp Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr Glu
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20 25 30

Asn Cys Gln Arg Ile Phe Lys Lys Glu Asp Cys Lys Tyr Ile Val Val
35 40 45

Glu Lys Lys Asp Pro Lys Lys Thr Cys Ser Val Ser Glu Trp Ile Ile
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Thr

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Ile Asn Ser Glu Trp Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr
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Glu Thr

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Tyr Glu Thr

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Cys Tyr Glu Thr
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Thr Cys Tyr Glu Thr
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Cys Thr Cys Tyr Glu Thr
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Gly Asn Lys His Pro Ile Asn Ser Glu Trp Gln Thr Asp Asn Cys Glu
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Thr Cys Thr Cys Tyr Glu Thr
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Lys Gly Asn Lys His Pro Ile Asn Ser Glu Trp Gln Thr Asp Asn Cys
 1 5 10 15

Glu Thr Cys Thr Cys Tyr Glu Thr
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<210> SEQ ID NO: 68
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Leu Lys Gly Asn Lys His Pro Ile Asn Ser Glu Trp Gln Thr Asp Asn
 1 5 10 15
 Cys Glu Thr Cys Thr Cys Tyr Glu Thr
 20 25

<210> SEQ ID NO: 69
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Asp Leu Lys Gly Asn Lys His Pro Ile Asn Ser Glu Trp Gln Thr Asp
 1 5 10 15
 Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr
 20 25

<210> SEQ ID NO: 70
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Met Asp Leu Lys Gly Asn Lys His Pro Ile Asn Ser Glu Trp Gln Thr
 1 5 10 15
 Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr
 20 25

<210> SEQ ID NO: 71
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Cys Met Asp Leu Lys Gly Asn Lys His Pro Ile Asn Ser Glu Trp Gln
 1 5 10 15
 Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr
 20 25

<210> SEQ ID NO: 72
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Lys Cys Met Asp Leu Lys Gly Asn Lys His Pro Ile Asn Ser Glu Trp
 1 5 10 15

Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr
20 25

<210> SEQ ID NO: 73
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Arg Lys Cys Met Asp Leu Lys Gly Asn Lys His Pro Ile Asn Ser Glu
1 5 10 15

Trp Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr
20 25 30

<210> SEQ ID NO: 74
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Thr Arg Lys Cys Met Asp Leu Lys Gly Asn Lys His Pro Ile Asn Ser
1 5 10 15

Glu Trp Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr
20 25 30

<210> SEQ ID NO: 75
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Ser Thr Arg Lys Cys Met Asp Leu Lys Gly Asn Lys His Pro Ile Asn
1 5 10 15

Ser Glu Trp Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr
20 25 30

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Asp Ser Thr Arg Lys Cys Met Asp Leu Lys Gly Asn Lys His Pro Ile
1 5 10 15

Asn Ser Glu Trp Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu
20 25 30

Thr

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Gly Asp Ser Thr Arg Lys Cys Met Asp Leu Lys Gly Asn Lys His Pro
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Ile Asn Ser Glu Trp Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr
20 25 30
Glu Thr

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Pro Gly Asp Ser Thr Arg Lys Cys Met Asp Leu Lys Gly Asn Lys His
1 5 10 15
Pro Ile Asn Ser Glu Trp Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys
20 25 30
Tyr Glu Thr
35

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Val Pro Gly Asp Ser Thr Arg Lys Cys Met Asp Leu Lys Gly Asn Lys
1 5 10 15
His Pro Ile Asn Ser Glu Trp Gln Thr Asp Asn Cys Glu Thr Cys Thr
20 25 30
Cys Tyr Glu Thr
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Gly Val Pro Gly Asp Ser Thr Arg Lys Cys Met Asp Leu Lys Gly Asn
1 5 10 15
Lys His Pro Ile Asn Ser Glu Trp Gln Thr Asp Asn Cys Glu Thr Cys
20 25 30
Thr Cys Tyr Glu Thr
35

<210> SEQ ID NO: 81
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Glu Gly Val Pro Gly Asp Ser Thr Arg Lys Cys Met Asp Leu Lys Gly
1 5 10 15
Asn Lys His Pro Ile Asn Ser Glu Trp Gln Thr Asp Asn Cys Glu Thr
20 25 30
Cys Thr Cys Tyr Glu Thr
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Asn Glu Gly Val Pro Gly Asp Ser Thr Arg Lys Cys Met Asp Leu Lys
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Gly Asn Lys His Pro Ile Asn Ser Glu Trp Gln Thr Asp Asn Cys Glu
20 25 30
Thr Cys Thr Cys Tyr Glu Thr
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Pro Asn Glu Gly Val Pro Gly Asp Ser Thr Arg Lys Cys Met Asp Leu
1 5 10 15
Lys Gly Asn Lys His Pro Ile Asn Ser Glu Trp Gln Thr Asp Asn Cys
20 25 30
Glu Thr Cys Thr Cys Tyr Glu Thr
35 40

<210> SEQ ID NO: 84
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Ile Pro Asn Glu Gly Val Pro Gly Asp Ser Thr Arg Lys Cys Met Asp
1 5 10 15
Leu Lys Gly Asn Lys His Pro Ile Asn Ser Glu Trp Gln Thr Asp Asn
20 25 30
Cys Glu Thr Cys Thr Cys Tyr Glu Thr
35 40

<210> SEQ ID NO: 85
 <211> 42
 <212> PRT
 <213>
 <400>

Phe	Ile	Pro	Asn	Glu	Gly	Val	Pro	Gly	Asp	Ser	Thr	Arg	Lys	Cys	Met
1				5				10						15	
Asp	Leu	Lys	Gly	Asn	Lys	His	Pro	Ile	Asn	Ser	Glu	Trp	Gln	Thr	Asp
			20					25					30		
Asn	Cys	Glu	Thr	Cys	Thr	Cys	Tyr	Glu	Thr						
			35					40							

<210> SEQ ID NO: 86
 <211> 43
 <212> PRT
 <213>
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Tyr	Phe	Ile	Pro	Asn	Glu	Gly	Val	Pro	Gly	Asp	Ser	Thr	Arg	Lys	Cys
1				5				10						15	
Met	Asp	Leu	Lys	Gly	Asn	Lys	His	Pro	Ile	Asn	Ser	Glu	Trp	Gln	Thr
			20					25					30		
Asp	Asn	Cys	Glu	Thr	Cys	Thr	Cys	Tyr	Glu	Thr					
			35					40							

<210> SEQ ID NO: 87
 <211> 44
 <212> PRT
 <213>
 <400>

Cys	Tyr	Phe	Ile	Pro	Asn	Glu	Gly	Val	Pro	Gly	Asp	Ser	Thr	Arg	Lys
1				5				10						15	
Cys	Met	Asp	Leu	Lys	Gly	Asn	Lys	His	Pro	Ile	Asn	Ser	Glu	Trp	Gln
			20					25					30		
Thr	Asp	Asn	Cys	Glu	Thr	Cys	Thr	Cys	Tyr	Glu	Thr				
			35					40							

<210> SEQ ID NO: 88
 <211> 45
 <212> PRT
 <213>
 <400>

Ser	Cys	Tyr	Phe	Ile	Pro	Asn	Glu	Gly	Val	Pro	Gly	Asp	Ser	Thr	Arg
1				5				10						15	
Lys	Cys	Met	Asp	Leu	Lys	Gly	Asn	Lys	His	Pro	Ile	Asn	Ser	Glu	Trp
			20					25					30		

Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr
 35 40 45

<210> SEQ ID NO: 89
 <211> 15
 <212> PRT
 <213>
 <220>
 <221> Modified site
 <222> 1
 <223> The residue in this position is either glutamic acid, asparagin, or aspartic acid.

<220>
 <221> Modified site
 <222> 4
 <223> The residue in this position is either threonine, or serine.

<220>
 <221> Modified site
 <222> 6
 <223> The residue in this position is either glutamic acid, asparagin, or aspartic acid.

<220>
 <221> Modified site
 <222> 8
 <223> The residue in this position is either glutamic acid, asparagin, or aspartic acid.

<220>
 <221> Modified site
 <222> 9
 <223> The residue in this position is either threonine, or serine.

<220>
 <221> Modified site
 <222> 11
 <223> The residue in this position is either threonine, or serine.

<220>
 <221> Modified site
 <222> 13
 <223> The residue in this position is either tyrosine, or phenylalanine.

<220>
 <221> Modified site
 <222> 14
 <223> The residue in this position is either glutamic acid, asparagin, or aspartic acid.

<220>
 <221> Modified site
 <222> 15
 <223> The residue in this position is either threonine, or serine.

<400>
 Xaa Trp Gln Xaa Asp Xaa Cys Xaa Xaa Cys Xaa Cys Xaa Xaa Xaa
 1 5 10 15

<210> SEQ ID NO: 90
 <211> 30
 <212> PRT
 <213>
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Glu Trp Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr Glu
 1 5 10 15
 Trp Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr
 20 25 30

<210> SEQ ID NO: 91
 <211> 45
 <212> PRT
 <213>
 <400>

Glu Trp Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr Glu
 1 5 10 15
 Trp Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr Glu Trp
 20 25 30
 Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr
 35 40 45

<210> SEQ ID NO: 92
 <211> 60
 <212> PRT
 <213>
 <400>

Glu Trp Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr Glu
 1 5 10 15
 Trp Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr Glu Trp
 20 25 30
 Gln Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr Glu Trp Gln
 35 40 45
 Thr Asp Asn Cys Glu Thr Cys Thr Cys Tyr Glu Thr
 50 55 60